

**IN THE ABSTRACT:**

Please replace the entire abstract with the following rewritten Abstract:

Protrudent matters caused by connecting metallic materials are detected with high precision and in turn offer products of high quality, and an increase of yield. The invention sets an allowable range and a non-allowable range around an outside outline (an outline of the work to be detected) of the connected work member on the basis of a shape of an outline of a reference work member (a reference outline) becoming a reference of the connected work member in order to judge presence or absence of the outline of the work to be detected in the non-allowable range, said allowable range allowing the existence of the outline of the work to be detected, and said non-allowable range not allowing the existence of the outline of the reference work.